

## Datasheet: PHP042A

**BATCH NUMBER 165548**

<b>Description:</b>	RECOMBINANT HUMAN INTERLEUKIN-2
<b>Name:</b>	IL-2
<b>Format:</b>	Rec. Protein
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	10 µg

### Product Details

#### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4ng/well
Western Blotting	▪			1.5 - 3.0ng/lane
Functional Assays	▪			0.1 - 2.0ng/ml

Where this protein has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate positive/negative controls.

#### Target Species

Human

#### Species Cross Reactivity

Reacts with: Cynomolgus monkey, Rhesus Monkey, Dolphin  
**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

#### Product Form

Purified protein produced in *E. coli* - lyophilized

#### Reconstitution

Reconstitute with 0.1ml 0.1M acetic acid  
 Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

#### Source

E.coli

#### Buffer Solution

10mM Sodium citrate.

<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Endotoxin Level</b>	< 0.1 ng/ug
<b>Approx. Protein Concentrations</b>	Total protein concentration 0.1mg/ml after reconstitution.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P60568</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3558</a>    IL2    <a href="#">Related reagents</a></p>
<b>Product Information</b>	<b>Recombinant human interleukin 2</b> is an <i>Escherichia coli</i> -derived recombinant protein corresponding to full-length mature human interleukin-2, a secreted peptide required for T-cell proliferation. This preparation has an ED50 of 0.1ng/ml as determined by the dose-dependent stimulation of the proliferation of murine CTLL-2 cells.
<b>Protein Molecular Weight</b>	15.5kDa (134 Amino acid sequence)
<b>Activity</b>	>1 x 10 <sup>7</sup> units/mg as determined by dose-dependent stimulation of CTLL-2 cells.
<b>Purity</b>	>98% by SDS PAGE and HPLC analysis
<b>ELISA</b>	This product may be used as a standard in ELISA applications with either <a href="#">AHP1032</a> or <a href="#">AHP1032B</a> .
<b>Western Blotting</b>	This product may be used as a positive control in western blotting applications with either <a href="#">AHP1032</a> or <a href="#">AHP1032B</a> .
<b>References</b>	<ol style="list-style-type: none"> <li>1. Akari, H. <i>et al.</i> (2000) Nef-induced major histocompatibility complex class I down-regulation is functionally dissociated from its virion incorporation, enhancement of viral infectivity, and CD4 down-regulation. <a href="#">J. Virol. 74 (6): 2907 - 2912.</a></li> <li>2. Chan, P.K. <i>et al.</i> (2010) T-cell response to human papillomavirus type 58 L1, E6 and E7 peptides in women with cleared infection, cervical intraepithelial neoplasia and invasive cancer. <a href="#">Clin Vaccine Immunol. 17: 1315-21.</a></li> <li>3. Doi, N. <i>et al.</i> (2010) Growth ability in various macaque cell lines of HIV-1 with simian cell-tropism. <a href="#">J Med Invest. 57: 284-92.</a></li> <li>4. Vaughan, K. <i>et al.</i> (2007) A DNA vaccine against dolphin morbillivirus is immunogenic in bottlenose dolphins. <a href="#">Vet Immunol Immunopathol. 120: 260-6.</a></li> <li>5. Ban, S.A. <i>et al.</i> (2014) Combined immunodeficiency evolving into predominant CD4+ lymphopenia caused by somatic chimerism in JAK3. <a href="#">J Clin Immunol. 34 (8): 941-53.</a></li> <li>6. Geoghegan, V. <i>et al.</i> (2015) Comprehensive identification of arginine methylation in primary T cells reveals regulatory roles in cell signalling. <a href="#">Nat Commun. 6: 6758.</a></li> </ol>

7. Yutani, S. *et al.* (2017) Feasibility study of personalized peptide vaccination for hepatocellular carcinoma patients refractory to locoregional therapies. [Cancer Sci. 108 \(9\): 1732-8.](#)
8. Hirakawa, Y. *et al.* (2019) Immunological consequences following splenectomy in patients with liver cirrhosis. [Exp Ther Med. 18 \(1\): 848-856.](#)

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<b>Storage</b>	Prior to reconstitution store at -20°C. Following reconstitution store at -20°C.  This product should be stored undiluted.  Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10527 available at: <a href="https://www.bio-rad-antibodies.com/SDS/PHP042A">https://www.bio-rad-antibodies.com/SDS/PHP042A</a> 10527
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Useful Reagents

[RABBIT ANTI HUMAN INTERLEUKIN-2 \(AHP1032\)](#)  
[RABBIT ANTI HUMAN INTERLEUKIN-2:Biotin \(AHP1032B\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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